South Carolina Department of Health and Environmental Control

2600 Bull Street
Columbia, S.C. 29201

Commissioner
Robert S. Jackson, M.D.

March 24, 1986

CERTIFIED MAIL

Shakespeare Electronics & Figerglass
Attention: Rodney F. Epting
PO Box 733
Newberry, SC 29108

RE: Continuing Release Questionnaire
Shakespeare Electronics & Fiberglass
SCD006540983

Dear Mr. Epting:

The purpose of this letter is to inform you that the requirements of the Federal Hazardous and Solid Waste Amendments of 1984 and South Carolina Regulation 61-79 apply to your facility. These requirements will be imposed by the Environmental Protection Agency until such time as they have been adopted into state regulations.

The principal area of concern at this time is Section 3004U of the RCRA amendments which requires that RCRA permits require corrective action to clean up any contamination caused by prior releases of hazardous wastes or constituents from solid waste management units, regardless of the time when the waste was placed in the unit.

In order to establish how Section 3004U may apply to your facility we ask that you prepare the information requested on the enclosed form and return it to the state office within sixty (60) days of your receipt of the letter. Your effort to answer all questions completely will help minimize further requests from our office on this matter.

Please contact me at (803) 758-5681 if you have any questions concerning this request.

Sincerely,

Hartsill W. Truesdale

Hartsill W. Truesdale, P.E., Director
Division of Facility Engineering
Bureau of Solid and Hazardous
Waste Management

HWT/lmm
Attachment
cc: Lynn Martin

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

JUL 15 2004

4WD-RCRA

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Jeff Price
Manager of Quality & Safety Compliance
Shakespeare Composite Structures
19845 U.S. Highway 76
Newberry, SC 29108

SUBJ: RCRA Compliance Evaluation Inspection
Shakespeare Composite Structures (Shakespeare)
EPA ID No.: SCD 006 540 983

Dear Mr. Price:

On April 2, 2004, representatives of the U.S. Environmental Protection Agency (EPA) and the South Carolina Department of Health and Environmental Control (SCDHEC) conducted a Resource Conservation and Recovery Act (RCRA) Compliance Evaluation Inspection (CEI) at the Shakespeare facility in Newberry, South Carolina. This was an EPA/State joint inspection for evaluating the facility's compliance with the applicable RCRA regulations.

Enclosed is the EPA RCRA Site Inspection Report which indicates that violations of RCRA were discovered. A copy of this report has also been forwarded to SCDHEC.

If you have any questions regarding this matter, please contact Bethany Russell, of my staff, by phone at (404) 562-8542 or by e-mail at russell.bethany@epa.gov

Sincerely,

Larry L. Lamberth, Acting Chief
North Enforcement and Compliance Section
RCRA Enforcement and Compliance Branch

Enclosure

cc: Bobby Lee- SCDHEC- CM Central Office
Gerald Shealy- SCDHEC, CM District Office
Hartsill Truesdale, SCDHEC- Central Office

404499

RCRA Compliance Inspection Report

1) Inspector and Author of Report

Bethany Russell, Environmental Scientist

2) Facility Information

Shakespeare Composite Structures (Shakespeare)
19845 U.S. Highway 76
Newberry, SC 29108
EPA ID No.: SCD 006 540 983

3) Responsible Official(s)

Jeff Price- Manager of Quality & Safety Compliance, Shakespeare
John Boozer III- Manager of Product Engineering, Shakespeare

4) Inspection Participants

Jeff Price- Shakespeare
John Boozer- Shakespeare
Bobby Lee- South Carolina Department of Health and Environmental Control (SCDHEC)
Gerald Shealy- SCDHEC
Bethany Russell- United States Environmental Protection Agency (EPA), Region 4

5) Date and Time of Inspection

April 2, 2004; 9:15 a.m.

6) Applicable Regulations

40 Code of Federal Regulations (C.F.R.) Parts 260-279,
Resource Conservation and Recovery Act (RCRA) Sections 3005 and 3007,
(42 US Code - Annotated U.S.C.A. 6925 and 6927), and
South Carolina Hazardous Waste Management Regulations (SCHWMR) R.61-79, 260 through 279.

7) Purpose of Inspection

The purpose of this inspection was to conduct an unannounced compliance evaluation inspection (CEI) and determine Shakespeare's compliance with the applicable requirements of RCRA and the corresponding SCDHEC regulations.

8) Facility Description

Shakespeare's Newberry, South Carolina facility is a manufacturer of fiberglass reinforced composite structures used in applications such as light poles, marine antennas, military antennas, railings, luminaires, etc. Genlyte Thomas Group LLC, headquartered in Louisville, KY, purchased Shakespeare in May of 2003. The facility currently employs 175 personnel and has notified as a large quantity generator of hazardous waste in the State of South Carolina. RCRA-regulated wastes generated at the facility include spent acetone (D001), waste polyester resin (D001), waste polyester paint (D001), universal wastes, and used oil.

9) Facility Inspection History

A previous RCRA inspection at this Shakespeare facility was performed by SCDHEC on 11/6/1996. Violations noted during that inspection include the following:

1. **SCHWMR R.61-79.265.173(d) [40 CFR § 265.173(d)]**: Failure to label containers with EPA waste identification codes.
2. **SCHWMR R.61-79.265.173(c) [40 CFR § 265.173(c)]**: Failure to label container in storage area.
3. **SCHWMR R.61-79.265.173(a) [40 CFR § 265.173(a)]:** Open satellite accumulation container.
4. **SCHWMR R.61-79.265.174 [40 CFR § 265.174]:** Failure to perform weekly inspections of hazardous waste storage area.

As a result of violations noted during that inspection, the State of South Carolina issued a 3008(a) Compliance Order on 6/6/1997.

10) Current Inspection Findings

The inspection began with an opening conference at 9:30 a.m. on April 2, 2004. Credentials were presented to Mr. Price, and the purpose of the inspection was stated. The facility tour was led by Mr. Price. A closing conference was held with Mr. Boozer following the inspection to discuss the findings. The areas inspected and inspection findings are as follows:

Approximately half of Shakespeare's business is the manufacture of composite poles (light poles, antennas, etc.), while the other half is the manufacture of outdoor composites (railings, buggy whips, etc.). Composite poles range in size, with the tallest pole in excess of 47 feet. Composite structures are manufactured by saturating fiberglass strands with resin and, depending on the product to be produced, the coated strands are either shaped into poles on a spiraling machine or pulled through a "hot dye process" to produce

other products. During the shaping process, the resin is cured at 250° F. The final products are then cooled and painted.

Shakespeare performs active manufacturing in two primary buildings onsite. The largest of the two buildings (Main Operations Building) is where large composite poles and antennas are manufactured, whereas the smaller building (Pole & Cross Arm Building) is where smaller poles are made.

Main Operations Building

Military Composites Area

Upon entering the main operations building through the main entrance, an area designated as the Composites Area is situated on the front, left hand portion of the building. This area is where antennas for military vehicles area manufactured. At the time of inspection, this area contained three 55-gallon containers of spent materials situated on two secondary containment pallets. The containers were labeled either "epoxy paint," or "polyester paint," or "spent acetone."

According to Mr. Price, the 55-gallon container of polyester paint is generated from small-scale painting operations which occur in this area. When facility personnel are finished using a necessary amount of paint, residual paint is poured into a satellite container where it is stored until potential reuse. At the time of inspection, the container had rags and miscellaneous debris mixed in with the paint and Mr. Price stated that most likely the paint would not be reused and would be transferred to the 90-day hazardous waste storage area when that determination was made.

Also stored in this area, next to the 55-gallon container of epoxy paint, was one 55-gallon container of "spent acetone to be reused." Mr. Price stated that, at times, facility personnel may reuse the spent acetone. If they determined that the acetone could not be reused, then it was transported to the 90-day hazardous waste storage area. Inspectors asked Mr. Price to provide an example of what the acetone was reused for and if he could give an estimate as to how much of the spent solvent is reused versus how much is disposed. Mr. Price could not provide inspectors with any instances of reuse or an approximation of how much of the materials are reused. According to the facility's hazardous waste manifests, between 1/15/04 and 4/1/04, the facility shipped off fifty-three 55-gallon drums of acetone as a hazardous waste; however, the 55-gallon drum in this area is the only accumulation point for acetone in the building.

EPA is concerned that Shakespeare is not legitimately reusing spent acetone as an "effective substitute for a commercial product." While EPA strongly encourages reuse of these materials, personnel should, at a minimum, be able to provide inspectors with a

description of instances of reuse and rough estimates of how much of the material is actually reused. If the materials are not being reused, they should be properly managed as hazardous waste.

Tower Area

This area of the facility is located near the back wall of the Composites Area and is designated as the Marine Antenna Section (Tower Area). Shakespeare hoists steel rods, which are to be made into marine antennas, into a resin bath in this area of the facility. After being coated, poles are conveyed to an oven where the resin is cured. No hazardous waste is generated or stored in this area. No RCRA violations were noted.

Military K-2

This area is located directly in front of the Tower Area. Shakespeare uses a large spiraling machine for spinning fiberglass and coating resin onto non-marine military antennas in this portion of the facility. At the time of inspection, there was cardboard placed on the floor under the spinning machine. The cardboard was coated with what appeared to be a blue ink/resin mixture.

Housekeeping needs to be improved in this area, as there was the ink/resin underneath the cardboard on the floor, as well as on top of the cardboard and surrounding area (Photo 1).

Shakespeare is in violation of SCHWMR R.61-79.262.11 [40 CFR § 262.11]. This regulation requires that a person who generates a solid waste, as defined in SCHWMR R.61-79.261.2 [40 CFR § 261.2], must determine if that waste is a hazardous waste using the methods described in this section.

On the floor next to the spiraling machine were two 5-gallon buckets with unknown liquid resin-like material mixed with trash. There was also a 5-gallon safety bucket of what appeared to be spent acetone mixed with rags/paper towels/ and miscellaneous debris (Photo 1). Facility personnel could not identify the contents of the containers and whether or not they contained waste or usable product.

Shakespeare is in violation of SCHWMR R.61-79.262.11 [40 CFR § 262.11]. This regulation requires that a person who generates a solid waste, as defined in SCHWMR R.61-79.261.2 [40 CFR § 261.2], must determine if that waste is a hazardous waste using the methods described in this section.

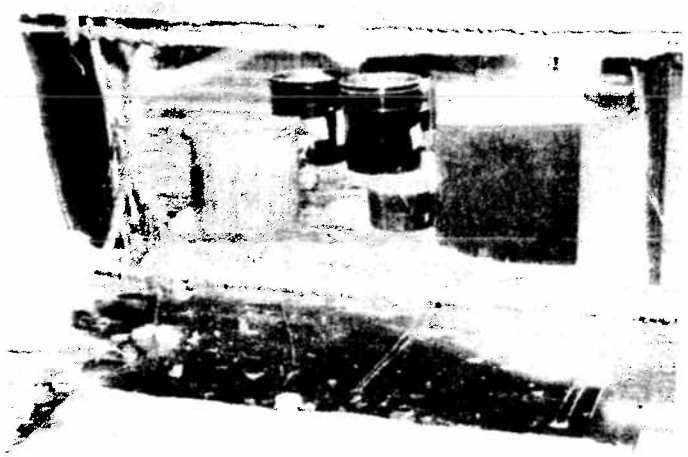

Photo 1. Foreground: blue resin-like material on floor under spiraling machine in Composites Area. Background: two black containers and one red container of unknown materials.

Outdoor Composites Area

Shakespeare cuts fiberglass for the outdoor-use products in this portion of the facility. As the fiberglass is being cut, water is run over the process to cool the cutting blades and to suppress dust. The used cooling water is collected in plastic tubs underneath the machines and is transferred to the on-site wastewater treatment system to remove suspended solids. No hazardous waste is generated in this area. No RCRA violations were noted.

Dirty Die and Tool Area

In the back of the facility, behind the Outdoor Composites Area, is an area designated for the storage of dies and tools which need to be cleaned before use. No hazardous waste is generated in this area. No RCRA violations were noted in this area.

Old Work Area

To the immediate left of the Die and Tool Area is an area which was formerly used as a dip operation. According to Mr. Price, the operation was recently moved overseas to China. At the time of inspection, there was a small coating machine and a Safety Kleen parts washer in this area. The coating machine was situated above a pit in the floor which was approximately 12 to 15 feet deep. Due to the depth of the pit, inspectors were unable to determine if the floor at the bottom of the pit was made of concrete or earthen materials. The floor surrounding the perimeter of the pit had accumulated spills of a black ink/resin material.

EPA is concerned about potential spills of hazardous constituents into the pit area underneath the coating machine. Shakespeare should address the spills in this area and ensure that, if the machine is to continue to be used in its current location, hazardous constituents from the coating process are not released to the environment.

Composite Assembly Area

Virgin Drum Storage Room/ Product Storage Area:

Shakespeare has two small rooms inside of the Composite Assembly Area where virgin product is stored. No hazardous waste is generated in these areas. No RCRA violations were noted.

Old Rod Cleaning Area

The Old Rod Cleaning Area is located on the opposite side of the building from the Composite Assembly Area. This part of the operation was moved overseas approximately one year prior to the CEI. According to Mr. Price, the area housed two tanks which contained a water/unknown additive used to steam clean solid rods (longitudinal composite fibers bonded with a polyester resin). At the time of inspection, the tanks in the area had been removed from service but not been emptied out when the process was abandoned. The floor surrounding the tanks was covered in an oil/water mixture which had leaked from the tanks (Photo 2). The area was equipped with a drain channel which led from the area of the spilled materials and emptied outside of the building. The area also contained two unlabeled 2-gallon buckets of used oil.

By failing to make a waste determination on the materials spilled from the abandoned tanks, Shakespeare is in violation of SCHWMR R.61-79.262.11 [40 CFR § 262.11]. This regulation requires that a person who generates a solid waste, as defined in SCHWMR R.61-79.261.2 [40 CFR § 261.2], must determine if that waste is a hazardous waste using the methods described in this section.

By failing to properly label the buckets of used oil, Shakespeare is in violation of SCHWMR R. 61-79.279.22(c)(1) [40 CFR § 279.22(c)(1)].

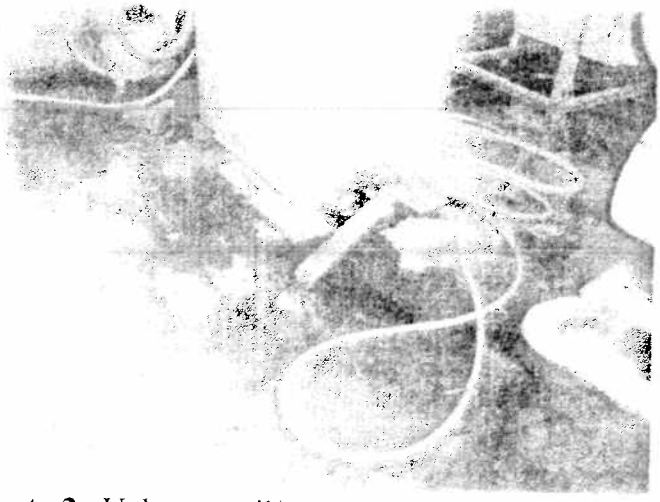

Photo 2. Unknown oil/water/additive mixture on floor of Old Rod Cleaning Area.

Resin Mixing Room

Shakespeare stores and mixes various reducing agents, additives, and miscellaneous chemicals in this portion of the facility. At the time of inspection, there were unknown powder-like materials spilled onto the floor in this area and several of the product storage drums were dripping either into a bucket or directly onto the floor (Photo 3). The material on the floor had accumulated to at least ½ inch thick. Located at the entrance to the room is a drain which, according to Mr. Price, drains directly outside to the "septic system." The "septic system" consists of six 10' deep underground concrete tanks (Photo 4).

By failing to determine whether the accumulated materials on the floor of the Resin Mixing Room were hazardous or contained hazardous constituents, Shakespeare has failed to make an adequate waste determination. Shakespeare is in violation of SCHWMR R.61-79.262.11 [40 CFR § 262.11]. This regulation requires that a person who generates a solid waste, as defined in SCHWMR R.61-79.261.2 [40 CFR § 261.2], must determine if that waste is a hazardous waste using the methods described in this section.

By failing to clean up spilled materials on the floor of the mixing room, which were potentially a hazardous waste, Shakespeare is in violation of SCHWMR R.61-79.262.90. This regulation requires that a generator must clean up any hazardous waste discharge that occurs during generation or processing or storage and take such other action as may be required or approved by Federal, State or local officials so that the hazardous waste discharge no longer presents a hazard to human health or the environment.

At the time of inspection, the drain at the entrance to this room contained a brown liquid mixed with powder-like materials (Photo 5). Since this drain leads outside of the building to a "septic system," and the facility failed to clean up the spilled materials and make an adequate waste determination, the facility has failed to maintain the facility prevent a potential release of hazardous waste constituents to the environment.

Shakespeare has failed to adhere to a condition for exemption from RCRA § 3005 given in SCHWMR R.61-79.265.31 [40 CFR § 265.31], as incorporated by SCHWMR R.61-79.262.34(a)(4) [40 CFR §262.34(a)(4)]. This regulation requires that facilities be maintained and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment. As such, Shakespeare is storing hazardous waste, without a permit or interim status, in violation of RCRA § 3005.

Photo 3. Resin mix room with spills on floor.

Photo 4. "Septic system" at Shakespeare.

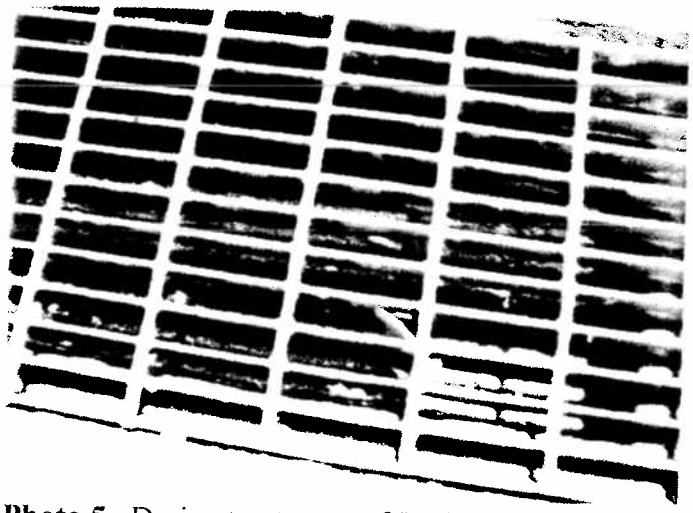

Photo 5. Drain at entrance of Resin Mix Room.

Research & Development (R&D)

Shakespeare maintains a R&D area to perform small-scale product innovation and testing. At the time of inspection, the area contained one small spray paint booth and one parts washer with acetone as the solvent. Inspectors noted one 2-gallon bucket of used oil in this area which was not labeled. Also, there was a bundle of metal shavings in a trash bin in this area.

By failing to properly label the container of used oil, Shakespeare is in violation of SCHWMR R.61-79.279.22(c)(1) [40 CFR § 279.22(c)(1)].

EPA recommends that before discarding metal shavings in a solid waste (Subtitle D) landfill, the facility ensure that the shavings do not contain any of the eight RCRA metals above regulatory maximums (SCHWMR R. 61-79.261.24(b), Table 1 [40 CFR § 261.24(b), Table 1]).

Paint Booth for Antennas (Automotive Paint Booth)

Shakespeare uses a manual spray paint booth, equipped with a dry filtration system, to paint antennas. The primary colors used in this booth are gray and black. According to Mr. Price, the facility currently uses water borne paints, but in the near future will be switching to an automated (robotic) solvent-borne system. Paint guns are currently purged with air directly into the dry filters. Filters are non-hazardous and are disposed of in a Subtitle D landfill. No RCRA violations were noted in this area.

Squeegee Coat Area

This portion of the facility, located to the immediate left of the Automotive Paint Booth, was formerly part of the antenna division, which was relocated to China. The room was mostly empty at the time of inspection, but there were three 5-gallon containers of liquid in the room which facility personnel could not identify.

Shakespeare is in violation of SCHWMR R.61-79.262.11 [40 CFR § 262.11]. This regulation requires that a person who generates a solid waste, as defined in SCHWMR R.61-79.261.2 [40 CFR § 261.2], must determine if that waste is a hazardous waste using the methods described in this section.

Maintenance Area

This portion of the facility is where Shakespeare has their "bulb crusher" used to grind used lamps. The crusher consists of an electrical crushing unit attached to a 55-gallon drum (Photo 6). The facility had not performed a hazardous waste determination on the crushed bulbs and was sending the crushed material off-site as a non-regulated waste.

Shakespeare is in violation of SCHWMR R.61-79.262.11 [40 CFR § 262.11]. This regulation requires that a person who generates a solid waste, as defined in SCHWMR R.61-79.261.2 [40 CFR § 261.2], must determine if that waste is a hazardous waste using the methods described in this section.

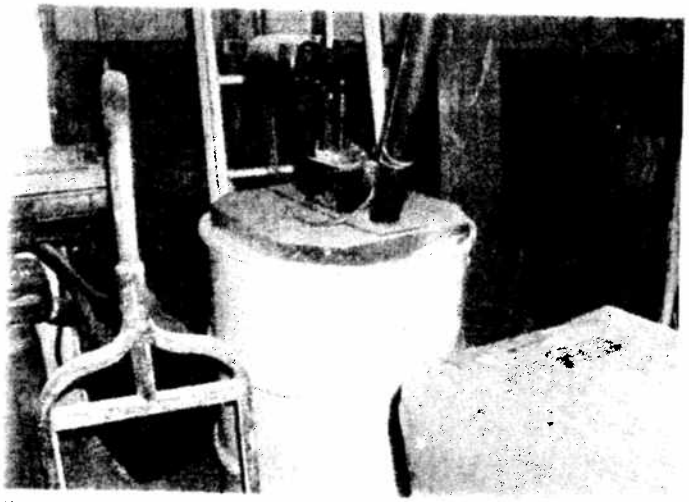

Photo 6. Bulb crusher in Maintenance Area.

Grinding Room

This portion of the facility houses several large grinding machines used to smooth fiberglass into the desired shapes. Water is run over the grinding operation as a cooling agent and dust suppressant. At the time of inspection, there was a significant amount of oil mixed with water on the floor underneath the grinding machines. Inspectors recommended that facility personnel improve housekeeping in the area by cleaning up the spill of oil and preventing future spills. Also in this area was one 5-gallon bucket of used oil which was not labeled.

By failing to properly label the container of used oil, Shakespeare is in violation of SCHWMR R.61-79.279.22(c)(1) [40 CFR § 279.22(c)(1)].

Wastewater Treatment Building

Shakespeare's wastewater treatment system is located in a separate building behind the Main Operations Building. The wastewater treatment system in this building was revamped in May 2003 when Genlyte Thomas acquired the company. Currently, wastewater from cooling and grinding operations is collected in four concrete basins (Photo 7), is then pumped into two roll-off containers (LRVs, Photo 8) where the suspended solids are filtered, and the water is returned to the process. When full, the contents of the LRVs are sent to a Subtitle D landfill. Prior to the installation of the new system, the facility accumulated wastewater in the same four concrete basins, and the water/solids mixture was periodically pumped into a tanker truck and transported to a "perc pond" located approximately one mile from the facility. Mr. Price stated that settled solids were occasionally removed from the pond.

Shakespeare had used the "perc pond" since the early 1970s. EPA is concerned that there is a possibility that the "perc pond" may have accumulated hazardous constituents prior to the installation of the new wastewater treatment system.

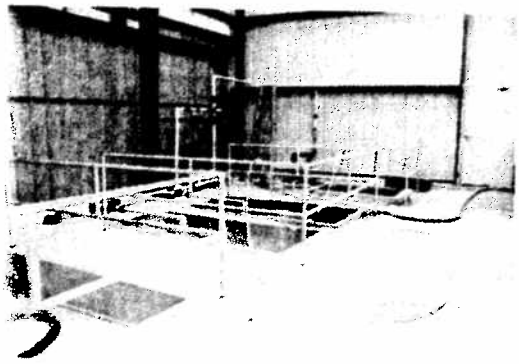

Photo 7. Concrete basins of wastewater treatment system.

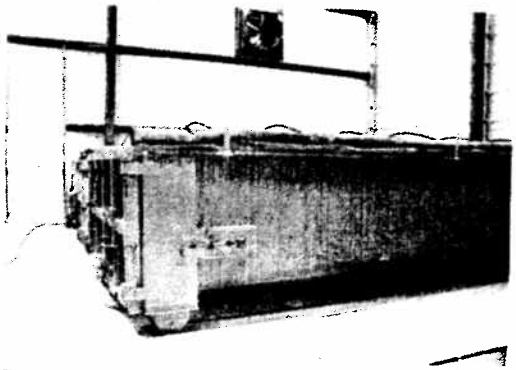

Photo 8. LVRs as part of wastewater treatment system.

Pole and Cross-Arm Building

This smaller active manufacturing building is located directly behind the larger Main Operations Building. Shakespeare manufactures smaller poles in this building. Two large polyester resin storage tanks are situated at the entrance to the building. Resin is transported via overhead piping into the mixing room where additives and catalysts are added before use. According to Mr. Price, no hazardous waste is generated or stored in this building. No RCRA violations were noted.

90-Day Hazardous Waste Storage Building

Shakespeare's hazardous waste storage building is located in the far back portion of the property, to the left of the Pole and Cross-Arm Building. The storage building is separated into two sides by a chain-link fence. The left side is used for hazardous waste storage and the right side is used for empty drum and product storage. At the time of inspection, there were five 55-gallon drums and one 1-cubic yard tote of waste on the left hand side of the storage building. According to Mr. Price, the facility had a pickup of hazardous waste the day before the CEI.

Inspectors noted cracks in the floor and containment dike and several areas of the floor where the protective coating was bubbled up and peeling off and was therefore not sufficiently impervious to contain leaks or spills (Photo 9).

Shakespeare is in violation of SCHWMR R.61-79.265.175(b)(1). This regulation requires that in container storage areas, a base must underlie the containers and must be free of cracks or gaps and be sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed.

Inspectors also noted a spill of liquid black paint-like material on the floor which resembled the outline of a drum.

By failing to clean up spilled materials, which were potentially hazardous waste, Shakespeare is in violation of SCHWMR R.61-79.262.90. This regulation requires that a generator must clean up any hazardous waste discharge that occurs during generation or processing or storage and take such other action as may be required or approved by Federal, State or local officials so that the hazardous waste discharge no longer presents a hazard to human health or the environment.

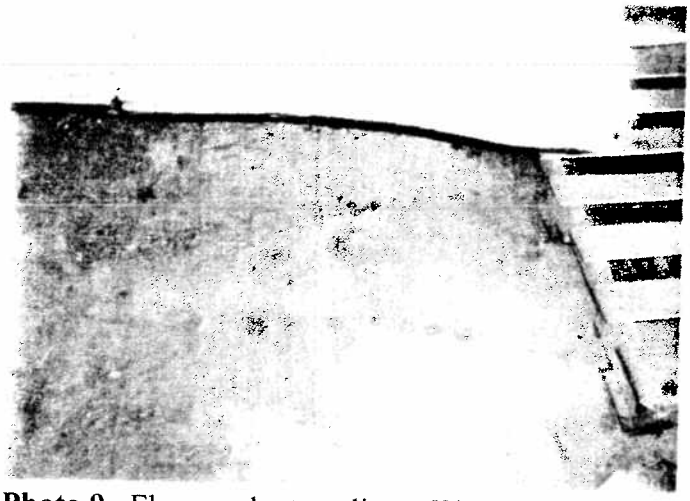

Photo 9. Floor sealant peeling off in hazardous waste storage area.

Of the five drums stored on the left side of the building, three were labeled "waste acetone" "D001/F003." All three containers were properly closed. One drum of "waste acetone" was dated 4/1/2004, but appeared to be an old drum (dust accumulated on the lid, Photo 10). On the reverse side of the drum were hazardous waste labels placed over one another with dates of 11-4-00, 11-19-01, and 11-4-03 (Photo 11).

Photo 10. "Old" drum in hazardous waste storage area.

Photo 11. Multiple labels on same drum in hazardous waste storage area.

EPA recommends that Shakespeare ensure containers of hazardous waste are properly labeled with correct accumulation start dates and are not inadvertently re-labeled when they should be shipped off-site.

Stored immediately next to the above mentioned drums of acetone were two drums labeled as "waste corrosive liquid/ KOH/water" "D002." Shakespeare did not have a physical barrier between the two incompatible materials.

Shakespeare has failed to adhere to a condition for exemption from RCRA § 3005 given in SCHWMR R.61-79.265.177(c) [40 CFR § 265.177(c)], as incorporated by SCHWMR R.61-79.262.34(a)(1)(i) [40 CFR § 262.34(a)(1)(i)]. This regulation requires that a storage container holding a hazardous waste that is incompatible with any waste or other materials stored nearby in other containers, piles, open tanks, or surface impoundments must be separated from the other materials or protected from them by means of a dike, berm, wall, or other devices. As such, Shakespeare is storing hazardous waste, without a permit or interim status, in violation of RCRA § 3005.

Both drums of the KOH " were properly labeled and were dated "3/6/2004." One of the drums was open and did not appear to have a liquid inside, but rather was a solid material mixed with garbage (Photos 12 & 13). Inspectors asked Mr. Price why the two containers were not transported off-site with the other hazardous waste shipped on the prior day. Mr. Price stated that they had not found anyone to take the material yet, as their current transporter and/or disposal company would not.

By failing to keep a container of hazardous waste closed during storage, Shakespeare has failed to adhere to a condition for exemption from RCRA § 3005 given in SCHWMR R.61-79.265.173(a) [40 CFR § 265.173(a)], as incorporated by SCHWMR R.61-79.262.34(a)(1)(i) [40 CFR § 262.34(a)(1)(i)]. This regulation allows that a generator of hazardous waste may store hazardous wastes on-site, without a permit or interim status, provided that containers holding hazardous waste remain closed except when it is necessary to add or remove waste. As such, Shakespeare is storing hazardous waste in violation of RCRA § 3005.

Photo 12. Open drum of "KOH."

Photo 13. Contents of open "KOH" drum.

The 1-cubic yard tote stored in this area contained miscellaneous old paint and solvents (Photo 14). Mr. Price stated that they were looking for a disposal company to take the paint. Shakespeare was not treating the paints/solvents in the tote as hazardous waste, although several solvents had ignitability listed as a characteristic on the container labels.

Therefore, Shakespeare failed to make an adequate waste determination on the materials in the tote and failed to properly manage the materials as hazardous waste.

Shakespeare is in violation of SCHWMR R.61-79.262.11 [40 CFR § 262.11]. This regulation requires that a person who generates a solid waste, as defined in SCHWMR R.61-79.261.2 [40 CFR § 261.2], must determine if that waste is a hazardous waste using the methods described in this section.

Shakespeare has failed to adhere to a condition for exemption from RCRA § 3005 given in SCHWMR R.61-79.262.34(a)(3) [40 CFR § 262.34(a)(3)]. This regulation allows that a generator of hazardous waste may store hazardous waste on-site, without a permit or interim status, provided that while being accumulated on-site, each container is labeled or marked clearly with the words "Hazardous Waste."

Shakespeare has failed to adhere to a condition for exemption from RCRA § 3005 given in SCHWMR R.61-79.262.34(a)(2) [40 CFR § 262.34(a)(2)]. This regulation allows that a generator of hazardous waste may store hazardous wastes on-site, without a permit or interim status, provided that each container holding hazardous waste is marked with the date upon which each period of accumulation begins. As such, Shakespeare is storing hazardous waste in violation of RCRA § 3005.

Shakespeare has failed to adhere to a condition for exemption from RCRA § 3005 given in SCHWMR R.61-79.265.173(a) [40 CFR § 265.173(a)], as incorporated by SCHWMR R.61-79.262.34(a)(1)(i) [40 CFR § 262.34(a)(1)(i)]. This regulation allows that a generator of hazardous waste may store hazardous wastes on-site, without a permit or interim status, provided that containers holding hazardous waste remain closed except when it is necessary to add or remove waste. As such, Shakespeare is storing hazardous waste in violation of RCRA § 3005.

Photo 14. Tote of old paint and solvents.

On the right hand side of the building was one unlabeled drum of unknown material.

Shakespeare is in violation of SCHWMR R.61-79.262.11 [40 CFR § 262.11]. This regulation requires that a person who generates a solid waste, as defined in SCHWMR R.61-79.261.2 [40 CFR § 261.2], must determine if that waste is a hazardous waste using the methods described in this section.

To the right and behind the 90-Day Storage Building, there were approximately 20 55-gallon drums of resin with added catalyst (MEKP) stored near the fence line (not at least 50 ft. from property line). The drums were open and the resin inside was being allowed to harden. Once hardened, the resin is non-hazardous, but until that occurs, resin should be treated managed properly as a D001 hazardous waste.

Shakespeare is in violation of SCHWMR R.61-79.265.176 [40 CFR § 265.176]. This regulation requires that containers holding ignitable or reactive waste must be located at least 15 meters (50 feet) from the facility's property line.

Empty Drum Storage Building

This building is located to the immediate left of the 90-day Storage Building. Mr. Price stated that this building was used solely for storage of empty drums which are to be reused. At the time of inspection, inspectors noted 24 55-gallon drums which contained unknown liquid. Mr. Price did not know what was in the drums. One 55-gallon drum, close to the entrance to the storage building, had the large bung out and was approximately half full of acetone.

Shakespeare is in violation of SCHWMR R.61-79.262.11 [40 CFR § 262.11]. This regulation requires that a person who generates a solid waste, as defined in SCHWMR R.61-79.261.2 [40 CFR § 261.2], must determine if that waste is a hazardous waste using the methods described in this section.

Shakespeare should not allow containers of acetone to remain open while not in use, so as to prevent acetone from volatilizing unnecessarily.

Records Review

Inspectors reviewed the following documents and noted no violations:

Hazardous waste manifests for April 2001 to April 2004, hazardous waste training records for 2001 to 2004, waste minimization plan, quarterly report, weekly inspection records for 2001 to 2004, and Contingency Plan (updated 12/2003).

11) Inspection Conclusion

Upon conclusion of the inspection, Mr. Price asked Mr. Boozner to join the close-out meeting; however, Mr. Price chose not to participate in the close-out meeting with inspectors and left the room before the summary of violations was presented. The following is a summary of site violations noted during the inspection and discussed with Mr. Boozner:

1. **SCHWMR R.61-79.262.11 [40 CFR § 262.11].** Failure to make an adequate hazardous waste determination on the following: Composites Area/Military K-2: two 2-gallon containers of unknown materials; Old Rod Cleaning Area: spilled materials on floor that leaked out of unemptied tanks; Resin Mixing Room: spilled accumulated material on floor; Squeegee Coat Area: three 5-gallon containers of unknown liquid; Maintenance Area: 55-gallon drum of crushed lamps; 90-day Hazardous Waste Storage Area: one 1-cubic yard tote of paint/solvents, one 55-gallon drum of unknown material on right-hand side of storage area; Empty Drum Storage Building: twenty-four 55-gallon drums of unknown liquid.
2. **SCHWMR R.61-79.279.22(c) [40 CFR § 279.22(c)].** Failure to label buckets of used oil in the following areas: Old Rod Cleaning Area: two small buckets of used oil; R&D: one 5-gallon bucket of used oil; Grinding Room: one 5-gallon bucket of used oil;
3. **SCHWMR R.61-79.262.90.** Failure to clean up spills of hazardous waste that occurs during generation, processing, etc. in the following areas: Resin Mixing Room: potentially hazardous materials spilled/accumulated on floor; 90-day Hazardous Waste Storage Area: black liquid on ground which resembled base of a drum.
4. **SCHWMR R.61-79.265.175(b)(1) [40 CFR § 265.175(b)(1)].** Failure to ensure floor of 90-day Hazardous Waste Storage Area is "sufficiently impervious."
5. **SCHWMR R.61-79.265.31 [40 CFR § 265.31]:** Failure to maintain/operate facility to minimize potential for releases in the Resin Mix Room where spilled potentially hazardous materials had migrated to the drain which leads to a "septic system."
6. **SCHWMR R.61-79.265.177(c) [40 CFR § 265.177(c)].** Failure to separate incompatible materials in 90-day hazardous waste storage area.
7. **SCHWMR R.61-79.265.173(a) [40 CFR § 265.173(a)].** Failure to properly close one 55-gallon container of "waste corrosive liquid" and one 1-cubic yard tote of waste paint/solvents in 90-day Hazardous Waste Storage Area.
8. **SCHWMR R.61-79.262.34(a)(2) [40 CFR § 262.34(a)(2)].** Failure to label one 1-cubic yard tote of waste paint/solvents with an accumulation start date in the 90-day Hazardous Waste Storage Area.

9. **SCHWMR R.61-79.262.34(a)(3) [40 CFR § 262.34(a)(3)].** Failure to label one 1-cubic yard tote of waste paint/solvents in the 90-day Hazardous Waste Storage Area with the words "Hazardous Waste."
10. **SCHWMR R.61-79.265.176 [40 CFR § 265.176].** Failure to store ignitable wastes at least 15 meters (50 feet) from the facility's property line outside of the 90-day Hazardous Waste Storage Area.

The following are site concerns noted from the inspection:

1. **Unverifiable Recycling/Reuse of materials**: facility stores drum of "used acetone," "epoxy paint," and drum of "polyester paint" in the Military Composites Area. Facility personnel stated that these drums contain spent materials which can potentially be reused and therefore they do not treat these containers as hazardous waste satellite accumulation areas; however, personnel could not provide inspectors with examples of potential reuse or with an estimated quantity of how much spent material was reused. While EPA strongly encourages reuse of these materials, personnel should, at a minimum, be able to provide inspectors with a description of instances of reuse and rough estimates of how much of the material is actually reused. If the materials are not being reused, they should be managed properly as hazardous waste.
2. **Housekeeping** should be improved in the Composites Area/Military K-2 so as to prevent a potential release to the environment..
3. **Potential spills of hazardous constituents** in the Old Work Area. Shakespeare should provide SCDHEC with written information regarding the pit located under the coating machine in this area, in particular, materials used with the coating machine which may have dripped into the pit, and whether the pit is lined with concrete or earthen materials.
4. Before Shakespeare discards metal shavings in a sanitary (Subtitle D) landfill, the facility should ensure that the shavings do not contain any of the eight RCRA metals above regulatory maximums (SCHWMR R.61-79.261.24(b), Table 1 [40 CFR § 261.24(b), Table 1]).
5. **"Perc Pond."** Until approximately May 2003, the facility captured wastewater from grinding and cooling operations in four indoor concrete basins. The water was periodically pumped out of the basins into a transfer truck which transported the water to a "perc pond" approximately 1 mile from the facility (although still owned by the facility). The water was then allowed to evaporate and the sludge periodically scraped out of the pond and sent to a landfill. According to facility personnel this pond had been in operation for approximately 35 years.
6. **Mis-labeling of drums with different accumulation start dates.** One drum in the 90-day storage area had multiple labels which dated back to 2000. Personnel must ensure that containers of hazardous waste are labeled with actual

accumulation start dates and are not inadvertently re-labeled when they should be shipped off-site.

7. **Allowing acetone to volatilize.** Shakespeare should not allow open containers of acetone to remain outside.

12) Signed:

Bethany Russell
Environmental Scientist

6/17/04
Date

13) Concurrence:

Larry L. Lamberth, Acting Chief
North Enforcement and Compliance Section
RCRA Enforcement and Compliance Branch

6/29/04
Date